THE THEORY OF ECONOMIC DEVELOPMENT AND PLANNING IN AN UNDERDEVELOPED COUNTRY, AS APPLICABLE TO CHINA

BY

ARTHUR TSUNG-YUAN LOH

B.A., St. John's University, Shanghai, 1945
M.S., University of Illinois, 1949

AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN ECONOMICS
IN THE GRADUATE COLLEGE OF THE
UNIVERSITY OF ILLINOIS, 1952

URBANA, ILLINOIS

1952

THE THEORY OF ECONOMIC DEVELOPMENT AND PLANNING IN AN UNDERDEVELOPED COUNTRY, AS APPLICABLE TO CHINA

BY

ARTHUR TSUNG-YUAN LOH

B.A., St. John's University, Shanghai, 1945
M.S., University of Illinois, 1949

AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN ECONOMICS
IN THE GRADUATE COLLEGE OF THE
UNIVERSITY OF ILLINOIS, 1952

URBANA, ILLINOIS

1952

ACKNOWLEDGEMENT

The writer is immeasurably indebted to his adviser, Professor C. Addison Hickman, without whose keen insight and constant guidance, this study would never have been completed. Much credit is due to Professor Dwight P. Flanders and Professor John F. Due, whose invaluable suggestions and sympathetic understanding have been an unfailing source of encouragement. The writer must also express his sincere gratitude to Professor Everett E. Hagen, who most generously assisted him with inspiring counsel during the early stages of development of this study. His acknowledgement must also go to Professor Leonid Hurwicz for reading a part of the original manuscript, which now forms the appendixes of the final study.

While the sources of inspiration have been many, the writer alone is responsible for the shortcomings which this study contains and for the conclusions which it reaches.

R. UNIV.
BIBLIOTHEEK
LEIDEN

THE THEORY OF ECONOMIC DEVELOPMENT AND PLANNING IN AN UNDERDEVELOPED COUNTRY, AS APPLICABLE TO CHINA

The problem of planning for the development of economically underdeveloped countries looms formidably in the world economic picture. While interest in the development of backward areas has been expressed by economically advanced nations, for a variety of social and political reasons, no one is more interested in the total welfare of a country than are its own people. The purpose of this study is, therefore, to analyze the theoretical problems of economic development and planning that confronts the underdeveloped countries from the viewpoint of the underdeveloped country, rather than from that of any other nation.

Once we accept this position, it becomes immediately evident that the real problem which faces these countries today is how to transmute their pattern of life and mode of production under a centralized plan, not how to make minor improvements in one phase of the economy to the gross neglect of the others. The attainment of maximum welfare in terms of reallocation of resources by accepting the social data as given is, therefore, insufficient for our purposes. This brings us to the problem of a sociology of economic development, being that part of the cultural process which is more directly related to the evolution in the use of scarce means to satisfy human wants.

Cultural development is an endless process of differentiation and organization in the "social relationship" (or the relationship between men) and in "men's relation with the physical world" (the physical environment as it exists for, or as it means to, men). As the social relationship and men's relation with the physical world differentiate, the degree of organization must also change in order to reëstablish the organizational unity at successively higher levels. Unless this

is done, turmoil and disturbances cannot be avoided. On the other hand, if the structure of organization in either the social relationship or in men's relation with the physical world is so rigid that differentiation is curtailed, the cultural development will likewise be obstructed.

The means to implement the economic objectives of the underdeveloped countries are themselves conditioned by the social relationship which underlies the basic structure of society. To the extent that the forces behind the improvement of economic status outweigh that of social inertia, the transformation from an old social order to a new one cannot be avoided. However, the ensuing new social order can neither be independent of its predecessor nor be free from its present economic environment.

It might have been a matter of historical accident that the great economic expansion of the modern era had its origin and most remarkable manifestation in certain particular sections of the world. The restraints which have kept many underdeveloped countries from taking advantage of their natural resources and available labor force, in the light of modern technology, are deeply rooted in the socio-political environments. For one thing, the traditional cultural atmosphere and the social framework in those countries exert powerful resistance to the adoption of practical measures of economic development. For the other, the interests of the ruling class and political conflict from within have mingled with the colonial interests and international power politics from without to baffle any systematic attempt to revolutionize economic life. It is obviously impossible for the economically underdeveloped countries to copy the socio-political structure of the economically advanced countries, and there is also no need for so doing in order to achieve economic development. The important point is that their socio-political environments, whatever they may be, must not only be consistent with their own historical heritage but also conducive to economic progress.

In spite of the fact that these socio-political barriers still

exist in many economically underdeveloped countries today, there is increasing evidence that they are undergoing persistent disintegration both from within and from without. For those countries which have already rid themselves of or are ready to remove these socio-political fetters, economic development becomes the immediate tangible objective. However, there still is the problem of choosing that means by which the objective of economic development could be most efficiently attained in an underdeveloped country, which possesses many natural factors requisite to industrialization but which has thus far failed to utilize them.

Advocates of the purely capitalist form of economic system claim that capitalism of the classical varieties provides the only road toward economic prosperity and individual freedom, forgetting that the socio-political-economic environment under which capitalism flourished has all but disappeared today. Just as the underdeveloped countries cannot retain their outmolded socio-political structure without obstructing their hope for economic development, the socio-political environment of the capitalist golden past cannot be reproduced without cultural retrogression. Followers of the purely socialist form of economic system allege that socialism is the final word in economic structure. And yet the inevitability of their conclusion is not so much the product of objective reasoning based on the world of reality as it is the offspring of a deep conviction based on a preconceived interpretation of some historical accidents.

The actual system in operation in the world of today lies somewhere in between, with most of the individual systems leaning either toward the one or toward the other. What seems clear is the unmistakable tendency for protagonists of these two polar systems to rationalize their own and to explain away the other. In their enthusiasm to do so, they have not infrequently developed dogmas and prejudices which have little economic justification in themselves once separated from the cultural atmosphere that creates them.

For those underdeveloped countries which would defy traditional culture to expedite economic development, there is no economic reason to embody dogmas, which, like traditions, tend to retard economic progress. In a study that involves the economic development of an underdeveloped country, it seems important that the theorist who assumes the viewpoint of an underdeveloped country should be free from the dogmas of both the right and the left and be neutral in politics. He must agree to judge all actions only by their effects and to use whatever methods that best serve the public interest. When such an approach is used in analyzing the problem of economic development in an underdeveloped country, many of the basic economic principles advanced by the "capitalist" and "socialist" writers become relevant in one way or another. Indeed, the basic laws of economic operation cannot be discarded. What must change, in the changing sociological circumstance, is their *modus operandi.*

In the underdeveloped countries, the basic economic problem is still the optimum allocation of resources and the maximum level of output. For more immediate considerations, rapid economic development precedes in the point of order, but as a permanent perspective, economic progress is the guiding criterion. In order to attain the optimum allocation of resources, the marginal social benefit must equal the marginal social cost on a satisfactory basis of income distribution. Here, just as elsewhere, the money and price system must be used to facilitate exchange. For the maximum level of economic activity to be achieved, the volume of investment in the economy must not only fill the gap between the national income and consumption, but also conform to the internal requirements determined by the conditions of technology, taste, population, and factor supplies. The volume of capital accumulated during the past still determines the extent to which advantages could be taken of the technically more efficient methods of production. Indeed, all these and many other basic considerations are familiar enough to every student of economics. However, the manner in which these basic economic

principles operate in the underdeveloped countries during the process of planned development is, perhaps, not quite so familiar.

If we agree to recognize (1) the basic human rights and freedom for the individual, (2) the human privileges and duties as members of society, and (3) the principle of equality of net advantage, some interesting observations may be made.

First, it does not seem necessary to socialize all the means of production in order to maintain social justification and the optimum allocation of resources. Nor is the public ownership of all the instruments of production a condition of comprehensive economic planning and functional control. What needs to be done, rather, is to remove the cause of unearned increments in land and natural resources, the source of inequality in hereditary fortunes and educational opportunities, and the source of monopoly in the ability to influence price. Differential wages, interests, and profits are still the economic means by which society rewards individuals for their contributions toward the operation of the economic process.

Second, the preservation of perfect competition, which is technically impossible in some sectors of the economy, is not a necessary condition for the attainment of economic optimum. It is the price-fixing quality and pressure for efficiency incident to perfect competition, rather than perfect competition *per se,* that are relevant to the optimum allocation of resources. The same effect could be achieved by three Rules of Production, which require managers of all economic units (1) to use that combination of factors which minimizes the average cost of production, (2) to produce to the point at which the marginal cost equals the price, and (3) to fix, in the absence of perfect competition, a price at which demand for the product equals the supply to be produced under the existing technology by equating marginal cost to price. Profit will still serve as a motive force to push economic activity to successively higher

levels and to act as a yardstick of efficiency, but it will in no way interfere with the optimum allocation of resources.

Third, it becomes evident to us that aside from socio-political considerations, the underdeveloped countries suffer from an inherent economic inertia which tends to retard the pace of economic development. The meagre past capital accumulation and the inability to accumulate capital currently makes it difficult for those countries to take advantage of the technically more efficient methods of production. Yet without employing the technically advanced capital-intensive means of production, their national income cannot be raised sufficiently. As a small rise in national income occurs, there is a tendency for the increase to be absorbed by consumption, thereby ruining the chances of further enhancement. In the absence of exogenous factors, the process of planless development not only is time consuming, but also may never be able to close the gap between the actual level of economic performance and the technically possible optimum, which is being constantly raised as technological improvements are, in the meanwhile, being made elsewhere in the world.

Economic development must follow a certain pattern to conform with the internal requirements of the economic system. Our understanding of the interrelationship of the various forms of economic forces, our retrospect over the course of development of the economically advanced countries, enable us to substitute some *ex ante* coordination in a scheme of development for the tardy *post facto* coördination that is achieved by the price mechanism. By rationalizing the theoretical possibilities in the light of practical implications, a planned economy under functional control appears to be a feasible answer. It is this conscious use of our knowledge about past events that makes it possible to guide the underdeveloped economy through a path of advancement which is not likely to be possible if development were left entirely to the initiative of private individuals.

Fourth, contrary to popular belief, the scheme of rapid

economic development and bold capital construction under centralized planning and functional control is not only consistent with the basic individual economic freedom to work, to consume, and to produce, but also needs no concurrent or previous fall in the absolute level of consumption anywhere during the process of planned development. The possibility of integrating planned coördination of the course of development at the center with a large measure of freedom of economic decisions at the periphery enables planned development to be carried out with practically no direct interference with the economic activities of the people. Instead of an unrealistic authoritative order from the center, planned production will take the form of a coördinated program, sanctioned by all the individual economic units through overall participation. The details of actually translating planned figures into actual goods and services will be left entirely to the initiative and discretion of the individaul plant managers.

The capital needs for the program of bold capital construction will only absorb a part of the annual increase in productivity, which is made possible by the persistent application of the technically more efficient methods of production under planned conditions. The other part of the annual increase in productivity is sufficiently large to permit a satisfactory annual increase in consumption without destroying the chance of further increase in national productivity by an adequate margin. While the impossibility of assigning mathematically accurate values to the marginal rate of increase in national income and the marginal capital-income ratio of our underdeveloped country makes any positive prediction precarious, a tentative conclusion may be ventured. If the national income is capable of a 12 per cent annual increase and the marginal capital-income ratio is 4 after the national income has achieved a 50 per cent increase over its initial level, the underdeveloped country could, under planned conditions, reach a level of economic activity, which is approximately 40 times that of its initial level, after 32 years. At the same time, consumption could achieve a 50 per cent in-

crease at the end of the fourth year and a 100 per cent increase at the end of the twelveth year. After 32 years, consumption could reach a level which is approximately 22 times the level of initial consumption. As far as the population trend of our underdeveloped country is concerned ,there appears to be no justification for the fear that a full-fledged Malthusian pressure might preclude any attempt to raise markedly the economic standard of the people. Under planned conditions, systematic development at a swift tempo is possible without inflicting any excessive hardship or coercion on the people.

Finally, when the actual level of economic activity in the underdeveloped countries overtakes the technically possible optimum, the process of planned development is complete. Beyond this stage, further economic progress depends largely upon the nature of future technological innovations, which is, in turn, a function of the unhampered initiative of the individual producers and the free acceptance of the consumers. At such times, planning and regimentation, which might bring the actual economic performance a little nearer toward the theoretical optimum under any given set of conditions, will curtail the opportunity of further economic progress by reducing the chances of producers to innovate and the chances of consumers to change their tastes. Therefore, for short-run considerations of rapid economic development, certain social actions may have to be imposed on the people, but in order to preserve the long-run conditions of economic progress, such imposition must be released as soon as the needs cease to exist. As favorable changes in technology, taste, population, and factor supplies occur, the level of economic activity is capable of further rise.

VITA

Arthur Tsung-Yuan Loh was born on December 2, 1923 in Shanghai, China. He received his elementary and high school education from the private schools in Shanghai. Upon graduation from the St. John's Middle School in 1942, he entered the St. John's University, Shanghai, China, and received the degree of Bachelor of Arts in Economics in June, 1945.

From July, 1945, to June, 1946, he was employed by the Sin Hwa Trust & Savings Bank in Shanghai, China, as a junior accountant. In July, 1946, he joined the Tung Tai Trading Company, and one year later he became the Assistant Manager, a position which he had held until he came to the United States in August, 1948, to pursue graduate studies.

He began his graduate work at the University of Illinois in September, 1948, and received the degree of Master of Science in June, 1949. For the years 1949-50 and 1950-51, he was appointed a Fellow in Economics in the Graduate College of the University of Illinois. He has since devoted his time to graduate studies and the preparation of this thesis.

He is a member of Order of Artus, Beta Gamma Sigma, Sigma Iota Epsilon, Phi Kappa Epsilon, the American Economic Association, and the American Academy of Political and Social Science.